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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,978	02/27/2004	Robert Bonthron Durward	THAS122504	6864

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EXAMINER	
DWIVEDI, VIKANSHA S	

ART UNIT	PAPER NUMBER
3746	

MAIL DATE	DELIVERY MODE
08/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/788,978	DURWARD, ROBERT BONTHRON	
	Examiner	Art Unit	
	VIKANSHA S. DWIVEDI	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-15,17-23,25-37 and 39-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-9,16,17,22,23,25,27-29,39,42 and 43* is/are rejected.

7)☒ Claim(s) *10-15,18-21,26,30-37,40 and 41* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 6-9, 16, 17, 22, 23, 25, 27-29, 39, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foreman et al. (U.S. patent number 5,127,773) in view of Guest (U. S. patent number 3,837,214) in further view of Novotny (U.S. Patent number 646,545).

Foreman discloses an apparatus for enhancing fluid velocity in a pipeline comprising: pigs (12) equipped with a thruster propulsion system (100) to propel them along a pipeline (14), a pipeline (14) having a holding zone (20) and a separation zone (10) in which the thruster pigs (12) are removed from the fluid flow; and means for driving thruster pigs sequentially through the pipeline (14) containing fluid at speeds in excess of that provided by a pressure system for the pipeline, such that the fluid is pushed by the thruster pigs and fluid is drawn by areas of low pressure created by the passage of the thruster pigs through the pipeline (front or back of 12 depending on the direction of movement of the pig); wherein the separation zone (10) is connected to a thruster pig return line (pipeline 14) which returns the thruster pigs to the holding zone (20); wherein the thruster pigs (12) are driven at speeds which are a multiple of a fluid speed (air speed) provided by the pressure system for the pipeline, thereby multiplying the

capacity of the pipeline; . Foreman does not disclose a pig independent of fluid pressure. Guest discloses a pig (Shown in figure 1) a pig that moves independently, a pig that is self-propelled and which is remotely controlled. In the method and apparatus of propulsion disclosed by Guest, pig has an electromagnetic energy signal transmitted therefrom through the pipeline and the pig is automatically stopped as a result of the acoustic detection of a leak; Guest also discloses a motor control circuit (40) which is one of linear synchronous motors, linear motors, linear induction motors, linear electrodynamic motors and a pulsed linear induction motor (conventional motor disclosed by Guest); magnets being incorporated into the pipeline pig (Detailed description, Paragraph 12); where the magnets are electromagnets and includes coil 922) that is multi-layered; wherein the power source is one of alternating current or direct current; wherein the pipeline pigs are driven for a substantial distance through the pipeline. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the apparatus for enhancing fluid velocity in a pipeline disclosed by Foreman in view of Guest to provide an inexpensive and practical solution for detecting pipeline leaks. (Guest, background of invention). Foreman in view of Guest does not teach that the pigs form seals with an inside surface of the pipeline. Novotny discloses an apparatus for enhancing fluid velocity and discloses a pig (a) which forma fluid tight seal (figures 1, 2 and 3) with the pipeline (figure 1 and 2). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the apparatus for enhancing fluid velocity in a pipeline disclosed by Foreman and Guest in view of Novotny to effectively drive pigs (Col. 2 ll. 80-90)

Allowable Subject Matter

Claims 10, 11, 12, 13, 14, 15, 18-21, 26, 30-36, 37, 40 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 6/20/2008 have been fully considered but they are not persuasive. In response to applicant's arguments, the recitation enhancing fluid velocity has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In response to applicant's argument that applicant's invention uses pigs to transport fluids, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant's arguments that Foreman et al. and Guest do not teach moving pipeline pigs in a pipeline faster than the fluid at the pipeline pressure, and do not teach pushing and pulling fluid through the pipeline. The combination of Foreman et al. and Guest results in the teachings of Claim 1 as Guest teaches pigs in a pipeline faster than the fluid at the pipeline pressure, the speed of the pigs 12 of Guest are dependent upon the pressure with which compressed air source 100 forces pigs12 through tube 14 and it can go faster than the speed of the fluid moving in the tube. Pig 12 creates areas of low and high pressure by the pneumatic pressure source connected to the tube, said pneumatic pressure source has sufficient capacity to direct a stream of air through the transport tube from first end to a second end of the transport tube.

Applicant's arguments that neither Foreman et al. nor Guest teaches an electromagnetic thrust system being used to provide propulsion, guidance, and suspension for the pipeline pig. The electromagnetic control signal and the motor, which may be an induction motor, is equivalent to the claimed electromagnetic thrust system as the electromagnetic control signal is used to start and stop the pig; the electromagnetic control signal turns the drive on and off. Thus the control signal is not the same as a drive system as when a system expels or accelerates mass in one direction the accelerated mass will cause a proportional but opposite force on that system, the thrust, and it is electromagnetic.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIKANSHA S. DWIVEDI whose telephone number is (571)272-7834. The examiner can normally be reached on M-F, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art Unit 3746

VSD